Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1-7. (Cancelled).

8. (Currently Amended) A method of preparing a mutant embryo ~~mutating a gene of~~ a vertebrate animal, comprising the steps of:

a) treating sperms of the vertebrate animal with a psoralen derivative;

b) irradiating the treated sperms with UV light to form a crosslink between a DNA double helix and the psoralen derivative;

c) fertilizing eggs of the vertebrate animal with the irradiated sperms in vitro; and

d) growing the fertilized eggs to mutant embryos of the vertebrate animal, wherein the mutant embryos ~~embryos of mutant having~~ comprise a gene having a small deletion of a plurality base pairs ~~around~~ at the crosslinked site in a genome.

9. (Cancelled).

10. (Previously Presented) The method of claim 8, wherein the psoralen derivative is 4,5',8-trimethylpsoralen.

11. (Previously Presented) The method according to claim 10, wherein the vertebrate animal is zebrafish.

12. (Currently Amended) The method according to claim 8, wherein the ~~mutation~~ crosslink is introduced into the DNA in a region containing a pyrimidine base.

13-17. (Cancelled).

18. (Currently Amended) A method for analyzing a function of a gene of a vertebrate animal, comprising the steps of:

a) treating sperms of the vertebrate animal with a psoralen derivative;

b) irradiating the treated sperms with UV light to form a crosslink between a DNA double helix and the psoralen derivative;

c) fertilizing ~~an egg~~ eggs of the vertebrate animal with the irradiated sperm in vitro;

d) growing the fertilized eggs to ~~a~~ mutant individuals of the vertebrate animal having a mutated gene which comprises ~~having~~ a small deletion of a plurality base pairs around the crosslinked site in a genome;

e) comparing phenotype of the mutant individuals of the vertebrate animal with that of ~~a~~ wild type individuals of the vertebrate animal to find a difference of phenotype between the mutant and the wild type;

f) cloning the mutated gene; and

g) analyzing functions of a gene of the vertebrate animal corresponding to the mutated gene from the difference of phenotype between the mutant and the wild type.

19. (Cancelled).

20. (Previously Presented) The method according to claim 18, wherein the psoralen derivative is 4,5',8-trimethylpsoralen.

21. (Previously Presented) The method according to claim 20, wherein the vertebrate animal is zebrafish.

22. (Currently Amended) The method according to claim 18, wherein the ~~mutation~~ crosslink is introduced into the DNA in a region containing a pyrimidine base.